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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,897	01/28/2002	Jervant Ulf	100508-09002	3031

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EXAMINER
JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
3726	9

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,897	ULF ET AL.	
	Examin r	Art Unit	
	Marc Jimenez	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☒ Interview Summary (PTO-413) Paper No(s). *9* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Telephone Interview

1. A telephone interview was conducted with Mr. Kevin S. Lemack on June 20, 2003 (see attached interview summary). During the interview, Mr. Lemack clarified the meaning of the word "concentric" in the claims. It was stated that none of the cavities of Henshaw et al. is concentric about the mass center of the blank as recited in claims 14 and 20 (and claims dependent thereon). It was discussed that in fig. 2 of Henshaw et al., the mass center of the I-beam appears to be located between the two cavities. The mass center of the I-beam is not located in the middle of either cavity and therefore neither cavity **15** (in fig. 2) is concentric about the mass center of the I-beam (the mass center of the I-beam is the center of the I-beam). In contrast, cavity **2a** of Figure 1 of the instant specification is concentric about the mass center of the blank **1**. Mr. Lemack further stated that the cavities **2** illustrated in Figure 1 of applicant's specification are not concentric about mass center of the blank. The cavity **2a** is the cavity which is arranged concentrically about the mass center in applicant's fig. 1.

2. On page 2, para. 3 of the office action mailed 4/16/03, it was stated that "Henshaw et al. teach the following in **Fig. 1-6**: a method of producing a bending-resistant, ...". Therefore, all of the figures (fig. 1-6) in Henshaw et al. were relied upon for teaching the features with respect to the rejected claims. However, para. 3 of the office action also stated that "... the at least one cavity (see fig. 2) being enclosed in the blank... ". The following office action clarifies the position that the examiner takes with respect to the teachings of Henshaw et al. Namely that fig.

1 of Henshaw et al. is still a proper 35 U.S.C. 102(b) reference with respect to independent claims 14 and 20. It is noted that the previous office action specifically pointed out the features in fig. 1 of Henshaw et al. with respect to claim 31 (see office action at page 3, the paragraph beginning with "Regarding claim 31,...").

Although it was discussed during the interview that **fig. 2** of Henshaw et al. does not have a cavity that is concentric about the mass center of the I-beam, it is noted that **fig. 1** of Henshaw et al. still reads on the claimed invention (**citations are described below**).

It is noted that newly cited reference Tazaki et al. (4,169,186) is relied upon for teaching additional longitudinal cavities (see cavities near lead line **2** of Tazaki et al.) with respect to claims 19 and 26.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 14, 15, 17, 18, 20-23, 25, 27, 28, and 31** are rejected under 35 U.S.C. 102(b) as being anticipated by Henshaw et al. (3,623,203).

Henshaw et al. teach a method of producing a bending-resistant, elongated body comprising: providing an elongated blank **11** having at least one cavity **16** extending essentially along the entire length of the blank **11**, the at least one cavity **16** having a longitudinal

axis, the at least one cavity **16** being enclosed in the blank **11** but for first and second spaced openings at opposite ends of the longitudinal axis, the inner surface **16** of which cavity is at a distance from the mass center (the mass center is in the vicinity of numeral **15** in fig. 1) of the blank **11** seen in a section at right angles to its longitudinal axis and is arranged concentrically around the mass center, the blank **11** being formed form a metallic material (col. 1, line 33), inserting a fiber composite body **15** formed from a plurality of fibers in a non-metallic binder **13** into at least one of the first and second openings of the at least one cavity **16**, and affixing in the cavity **16** the fiber composite body **15** with an outer surface essentially congruent with the inner surface of the cavity **16**, wherein a majority of fibers in the fiber composite body both extend essentially parallel to the longitudinal axis of the elongated blank **11** and are elongated along the whole of its length.

Regarding claims 15 and 22, affixing comprises gluing the fiber composite in the cavity (col. 4, lines 6-39).

Regarding claims 17, 23, and 28 note that epoxy is used for gluing (col. 4, line 22).

Regarding claims 18 and 21, carbon fiber in an epoxide matrix is used as the fiber composite body (col. 3, lines 74-75, graphite filaments is carbon fiber).

Regarding claim 24, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. Id. citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L.*

Gore, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

Regarding claim 25, the beam is extruded (col. 1, line 43).

Regarding claim 31, note that in fig. 1, the bending resistant body is shaped like a spindle (cylindrical in shape like the body shown in fig. 1 of applicant's drawing). Regarding the recitation that the spindle is used for carrying paper reels, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Henshaw et al.

Claim 24 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Henshaw et al.

Henshaw et al. teach the invention cited with the exception of shrinking the cavity to the fiber composite body. Claim 24 is written in product-by-process form. As noted above, the patentability of product does not depend on its method of production. However, if applicant

shows convincing evidence that the limitations in claim 24 add additional structure to the claimed invention note the following (also applicable to claim 16):

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have provided the invention of Henshaw et al, with shrinking the cavity because applicant has not disclosed that shrinking provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the gluing taught by Henshaw et al. (or claimed in applicant's claim 15) or the claimed shrinking because both affixing methods perform the same function of securing the composite body in the cavity equally well. Therefore, it would have been an obvious matter of design choice to modify Henshaw et al. to obtain the invention as specified in claims 16 and 24.

7. **Claims 19 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henshaw et al. in view of Tazaki et al. (4,169,186).

Henshaw et al. teach the invention cited with the exception of having a number of longitudinal cavities distributed with an equal pitch symmetrically around its mass center seen in a section at right angles to its longitudinal axis.

Tazaki et al. teach a number of longitudinal cavities (in vicinity of lead line **2**) distributed with an equal pitch symmetrically around its mass center seen in a section at right angles to its longitudinal axis.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Tazaki et al. with a number of longitudinal cavities distributed

with an equal pitch symmetrically around its mass center seen in a section at right angles to its longitudinal axis, in light of the teachings of Tazaki et al., in order to provide additional reinforcement.

8. **Claims 29 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henshaw et al. in view of Mahoney et al. (5,207,848).

Henshaw et al. teach the invention cited except that Henshaw et al. teach a solidly formed tubular fiber composite body **15** (see fig. 2) instead of the claimed tubular composite body having a central bore devoid of fibers.

Mahoney et al. teach a fiber composite body **16** that is tubular and has a central bore devoid of fibers.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Henshaw et al. with a tubular composite body that has a central bore devoid of fibers, in light of the teachings of Mahoney et al., in order to reduce the weight of entire the roll.

Response to Arguments

9. Applicant's arguments with respect to claims 14-31 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

10. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
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July 17, 2003